



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/730,901

12/10/2003

Jonathan Maron

19111.0118

5193

68009 7590 11/16/2007  
BINGHAM MCCUTCHEN, LLP  
2020 K STREET, NW  
BOX IP  
WASHINGTON, DC 20006

EXAMINER

KANG, INSUN

ART UNIT

PAPER NUMBER

2193

MAIL DATE

DELIVERY MODE

11/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,901	<b>Applicant(s)</b> MARON, JONATHAN	
	<b>Examiner</b> Insun Kang	<b>Art Unit</b> 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 8/21/2007.
2. As per applicant's request, claims 1, 3-6, 8, 10-13, 15, 17-20, 22, 24, 25, 27, and 28 have been amended. Claims 1-28 are pending in the application.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 22-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 22-28 are non-statutory because they are directed to a "component" that is not stored on a computer storage medium or a computer. The component is merely "operable" in an application server that comprises a processor and memory. The component itself is not embodied on a computer storage medium/computer. Therefore, the claimed "component" is a disembodied arrangement so as to be called a "computer program," hence represents only an abstract idea. Therefore, the claims are non-statutory. It is recommended to use "An application tuning server-side component stored on a computer storage medium for tuning an..."

The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.  
<[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)>

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-44 of copending Application No.10/730897 hereafter '897.

Although the conflicting claims are not identical, they are not patentably distinct from each other because they are directed to substantially the same invention and recites only obvious differences which would have been obvious to one of ordinary skill in the art of program development at the time of invention such as simply (i) omitting/adding steps or elements along with their functions, and/or (ii) implementing the method steps with means for performing the steps, and/or (iii) computer program implementation of the method, and/or (iv) implementing a system, product, tuning tool having computer program for performing the method steps.

The following example is given:

Per claim 1:

Art Unit: 2193

The copending application '897 claims:

A method of tuning an application deployed in an application server, (*"A method of tuning an application deployed in an application server, comprising the steps of,"* claim 1)

deploying the application in the application server; (*"deploying the application in the application serve,"* claim 1);

invoking an application tuning server-side component operable to retrieve information relating to parameters of the deployed application that are to be tuned (*"invoking an application tuning tool to display an interface including displays of current values of application parameters and measurements of performance of the application,"* claim 1)

receiving specifications of values of application tuning parameters (*"receiving specifications of values of application tuning parameter,"* claim 1);

and tuning the deployed application using the received specified parameter values (*"tuning the application using the received specified parameter value,"* claim 1).

displaying an effect on system and application performance in real time (*"display an interface including displays of current values of application parameters and measurements of performance of the application, claim 1).*

The instant claim does not explicitly recite the interface displays emphasize importance of a particular parameter over another parameter as recited in co-pending claim 1.

However, it would have been obvious for one of ordinary skill in the art of program development at the time the instant invention was made to modify the co-pending method by omitting the step of emphasizing importance of a particular parameter over another parameter recited in co-pending claim 1 for the purpose of expediting the method.

This is a provisional obviousness-type double patenting rejection.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4, 8-11, 15-18, and 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Dumarot et al. (US patent. RE38865) hereafter “Dumarot.”

Per claim 1:

Dumarot discloses:

-tuning an application deployed in an application server (i.e. “*adjust system or application parameters in order to optimize the operation of the application,*” col. 7, lines 1-25; col. 6 lines 20-26; “an optimization process 300 that the *local computer 12 or server 130 uses to optimize software applications 138* and system response or utilization, or to provide recommendations 480... the optimizer 136 gathers relevant system information including: operating system 150 version and release data, installed hardware components, hardware configuration, and software configurations (col. 5, lines 34-41);

Art Unit: 2193

-deploying the application in the application server; (i.e. “*program application performance on a computer system ... configuration information and performance capabilities based on characteristics of the program/system ...the configuration information and the performance capabilities are used to optimize configuration parameters of the program applications so as to enhance the performance of the workstation in running the program system,*” col. 3 lines 40-52)

-invoking an application tuning server-side component operable to retrieve information relating to parameters of the deployed application that are to be tuned (i.e. “The optimization database table ...the *optimizer program...*on the local computer and/or the remote computer. The optimizer program *contains or accesses* a dynamic monitor 137 of system and application activity...*particular settings of the application* that may affect application performance,” col. 4, lines 43-59; “the optimizer 136 gathers relevant system information...the optimizer may query the current CPU use, memory use, or other activity,” col. 5, lines 37-59)

-receiving specifications of values of application tuning parameters (i.e. “The *optimizer program* 136 may contain a graphical user interface 139, used to *specify settings or provide information to the user.*(col. 4, lines 55-58)

-and tuning the deployed application using the received specified parameter values (i.e. “the optimizer ... can *adjust the following parameter settings ...to adjust performance,*” col. 6 lines 9-26)

- displaying an effect on system and application performance in real time (i.e. “The optimizer icon may change colors when the rule ...has a beneficial effect,” col. 9 lines 40-43; “graphically depicted as cutouts...to help give users a graphical...indication of the placement,”

Art Unit: 2193

col. 9 lines 20-25; “disk space is low,” col. 7 lines 26-36; “control dynamic settings,” col. 5 lines 31-33).

Per claim 2:

Dumarot further discloses:

-wherein the step of invoking the application tuning server-side component is performed in response to an action by an administrator, engineer, or user of the application server (i.e. “user-specified preferences,” col. 3, lines 15-20; the user may enter text or data ... that specifies a level of optimization ...application settings,” col. 6 lines 9-20).

Per claim 3:

Dumarot further discloses:

- wherein the information relating to application parameters the deployed application that are to be tuned comprises: current values of application parameters of the deployed application that are to be tuned and measurements of performance of the application (i.e.” the optimizer may query the current CPU use, memory use, or other activity,” col. 5, lines 56-59; “control various parameters 420, associated with a particular application name,” col. 5 lines 41-55).

Per claim 4:

Dumarot further discloses:



Art Unit: 2193

-wherein the application tuning server-side component is operable to accept input from the administrator, engineer, or user to specify values of the parameters of the deployed application that are to be tuned (i.e. "user-specified preferences," col. 3, lines 15-20; the user may enter text or data ... that specifies a level of optimization ... application settings," col. 6 lines 9-20).

Per claims 8-11, they are the system versions of claims 1-4, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-4 above.

Per claims 15-18, they are the product versions of claims 1-4, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-4 above.

Per claims 22-25, they are the application component versions of claims 1-4, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-4 above.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5, 6, 12, 13, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumarot et al. (US patent. RE38865) hereafter "Dumarot," as applied to claims 1-4, 8-11,

Art Unit: 2193

15-18, and 22-25 above, in view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application.

Per claim 5:

Dumarot discloses adjusting application parameters for optimal performance (i.e. col. 7, lines 1-25; col. 6 lines 20-26) but does not explicitly teach that the values of application parameters comprise at least one of: Database Connection Pool size, Thread Pool Size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, Session pool size, and Java Virtual Machine tuning parameters. However, APA teaches tuning such configuration parameters were known in the pertinent art, at the time applicant's invention was made, to minimize response time or maximize throughput etc ("modification of multiple configuration parameters such as thread pool size, connection pool size, transaction timeout period, various Java Virtual Machine...parameters," page 1). It would have been obvious for one having ordinary skill in the art to modify Dumarot's disclosed system to incorporate the teachings of APA. The modification would be obvious because one having ordinary skill in the art would be motivated to optimize performance by tuning configuration parameters such as thread pool size (page, lines 19-21) as suggested by APA.

Per claim 6:

APA further discloses:

wherein the measurements of performance of the application comprise at least one of:  
Overall transactions per second, Average Request Time, HTTP transactions per second,  
Database connections used, HTTP connections used, Active thread count, Overall throughput,

Art Unit: 2193

Database throughput, HTTP throughput (i.e. “application performance is typically measured in terms of response time, transactions per second, throughput etc,” page 1, lines 13-18).

Per claims 12 and 13, they are the system versions of claims 5 and 6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 5 and 6 above.

Per claims 19 and 20, they are the product versions of claims 5 and 6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 5 and 6 above.

11. Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumarot et al. (US patent. RE38865) hereafter “Dumarot,” in view of Applicant's Admitted Prior Art (hereinafter referred to as “APA”) disclosed in the instant application, and further in view of Bowker (“Superior app management with JMX,” JavaWorld, 6/8/2001).

Per claim 7:

Dumarot and APA disclose tuning configuration parameters but neither Dumarot nor APA explicitly discloses that the application tuning server-side component is implemented using Java Management Extensions. However, Bowker teaches JMX was known in the pertinent art, at the time applicant's invention was made, to enable to “query the configuration settings and change them during runtime (i.e. page 1, lines 1-4). It would have been obvious for one having ordinary skill in the art to modify the disclosed system of Dumarot in view of APA to incorporate the teachings of Bowker. The modification would be obvious because one having

Art Unit: 2193

ordinary skill in the art would be motivated to create a consistent approach to managing applications in real time (i.e. page 1, lines 1-4) as suggested by Bowker.

Per claim 14, it is the system version of claim 7, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 7 above.

Per claim 21, it is the product version of claim 7, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 7 above.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dumarot et al. (US patent. RE38865) hereafter “Dumarot,” in view of Bowker (“Superior app management with JMX,” JavaWorld, 6/8/2001).

Per claim 26:

Dumarot disclose an optimizer tuning configuration parameters but Dumarot does not explicitly discloses that the optimizer is implemented using Java Management Extensions. However, Bowker teaches JMX was known in the pertinent art, at the time applicant's invention was made, to enable to “query the configuration settings and change them during runtime (i.e. page 1, lines 1-4). It would have been obvious for one having ordinary skill in the art to modify the disclosed system of Dumarot to incorporate the teachings of Bowker. The modification would be obvious because one having ordinary skill in the art would be motivated to create a consistent approach to managing applications in real time (i.e. page 1, lines 1-4) as suggested by Bowker.

13. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumarot et al. (US patent. RE38865) hereafter “Dumarot,” in view of Bowker (“Superior app management with JMX,” JavaWorld, 6/8/2001), and further in view of Applicant's Admitted Prior Art (hereinafter referred to as “APA”) disclosed in the instant application.

Per claim 27:

Dumarot discloses adjusting application parameters for optimal performance (i.e. col. 7, lines 1-25; col. 6 lines 20-26) and Bowker discloses a configuration management tool of any application server, JMX (page 1, lines 1-4) but neither Dumarot nor Bowker explicitly teach that the values of application parameters comprise at least one of: Database Connection Pool size, Thread Pool Size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, Session pool size, and Java Virtual Machine tuning parameters. However, APA teaches tuning such configuration parameters were known in the pertinent art, at the time applicant's invention was made, to minimize response time or maximize throughput etc (“modification of multiple configuration parameters such as thread pool size, connection pool size, transaction timeout period, various Java Virtual Machine...parameters,” page 1). It would have been obvious for one having ordinary skill in the art to modify the systems of Dumarot and Bowker to incorporate the teachings of APA. The modification would be obvious because one having ordinary skill in the art would be motivated to optimize performance by tuning configuration parameters such as thread pool size (page, lines 19-21) as suggested by APA.

Per claim 28:

APA further discloses:

wherein the measurements of performance of the application comprise at least one of:

Overall transactions per second, Average Request Time, HTTP transactions per second, Database connections used, HTTP connections used, Active thread count, Overall throughput, Database throughput, HTTP throughput (i.e. “application performance is typically measured in terms of response time, transactions per second, throughput etc,” page 1, lines 13-18).

### ***Response to Arguments***

14. Applicant's arguments filed on 8/21/2007 have been fully considered but they are not persuasive.

The applicant states that: 1) claims 1, 8, 15, and 22 require tuning a deployed application using received specified parameter values...while it is running and functional whereas Dumarot only discloses tuning of an application upon startup of the application (remark, 16)

In response to the above statement 1), Dumarot discloses automatically optimizing hardware and software running on a computer (i.e. col. 3 lines 28-29) and clearly states that the various user applications 138 run on the remote or local computer (i.e. col. 4 lines 49-50). The applications to be optimized are deployed on a remote or local computer (running) prior to optimization. The optimizer “dynamically” monitors system and application behavior and performance and sets various parameters in hardware or application software for optimizing (tuning). See at least, col. 3 lines 25-27; col. 4 lines 47-50; col. 5 lines 26-29. The dynamic

Art Unit: 2193

optimization (tuning) is performed while the software is running on a remote or local computer (dynamically).

The applicant states that: 2) the claims further require displaying an effect on system and application performance in real time. By contrast, Dumarot cannot disclose or suggest real time display of the effects of application tuning, since the tuning disclosed by Dumarot does not affect the application until the application starts up, not in real time (remark, 16).

In response to the above statement 2), Dumarot's optimizer GUI displays effect on system (i.e. "The optimizer icon may change colors when the rule ...has a beneficial effect," col. 9 lines 40-43; "graphically depicted as cutouts...to help give users a graphical...indication of the placement," col. 9 lines 20-25) and application performance in real time (i.e. "disk space is low," col. 7 lines 26-36; "control dynamic settings," col. 5 lines 31-33). The dynamic optimization (tuning) is performed while the software is running on a remote or local computer (dynamically).

Per claims 5-7, 12-14, 19-21, 26, 28:

The applicant states that claims are allowable, as Dumarot does not disclose the limitations in the independent claims 1, 8, 15, and 22 and therefore the combinations do not disclose the claimed subject matters. As shown above, the rejections of the independent claims 1, 8, 15, and 22 by Dumarot are maintained, the arguments that claims 5-7, 12-14, 19-21, 26, 28 are allowable as being dependent on the allowable base claims are considered moot.

Accordingly, the rejections of claims 5-7, 12-14, 19-21, 26, 28 are maintained.

***Conclusion***

**15. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**16.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 8:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG AI AN can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->



Art Unit: 2193

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IK  
AU 2193



**MENG-AL T. AN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**